

APR 24 2007

In The Claims:

1. (withdrawn) A method of controlling an automotive vehicle comprising:
detecting a potential for a wheel lift;
determining a wheel lift pressure request to determine wheel lift;
generating a roll control pressure request; and
suppressing the wheel lift pressure request in response to the roll control pressure request.
2. (withdrawn) A method as recited in claim 1 wherein determining a wheel lift pressure request comprises determining a wheel lift pressure request to determine wheel lift for a first wheel on a hydraulic circuit.
3. (withdrawn) A method as recited in claim 2 wherein generating the roll control pressure request comprises generating a roll control pressure request to a second wheel of the hydraulic circuit and monitoring the difference between the roll control pressure request and a caliper pressure estimate for a control wheel so that the hydraulic circuit fulfills the roll control pressure request.
4. (withdrawn) A method as recited in claim 1 wherein the step of suppressing comprises suppressing the wheel lift pressure when the roll control pressure request is above an estimate of the caliper pressure estimate by a predetermined threshold.
5. (withdrawn) A method as recited in claim 1 further comprising when the roll control pressure request is below a second threshold, discontinuing suppressing.
6. (withdrawn) A method as recited in claim 1 further comprising discontinue suppressing during a stable roll motion.

7. (withdrawn) A method as recited in claim 1 further comprising discontinuing suppressing when the vehicle is grounded.

8. (withdrawn) A method of controlling a vehicle having a hydraulic circuit coupled to a first wheel and a second wheel comprising:

initiating build request in response to a suspected wheel lift for the first wheel of the hydraulic circuit;

generating a roll control pressure request for a second wheel of the hydraulic circuit; and

entering a release cycle for the wheel lift pressure request when the roll control pressure request is above a predetermined threshold.

9. (withdrawn) A method as recited in claim 8 further comprising when the roll control pressure request is below a second threshold, discontinuing the release cycle.

10. (withdrawn) A method as recited in claim 9 further comprising initiating a build cycle after discontinuing the release cycle.

11. (currently amended) A method of operating an automotive vehicle comprising:

initiating a build cycle;

storing a peak wheel speed after initiating the build cycle;

determining a second wheel speed to determine a change in wheel speed from the peak speed;

determining a slip ratio in response to an applied torque; and

determining a wheel lift status when the change in the wheel speed is greater than a predetermined value, and in response to said slip ratio, wherein each of the steps are performed with respect to a single wheel of the vehicle.

12. (canceled)

13. (previously presented) A method as recited in claim 11 further comprising ending a build cycle in response to said slip ratio being negative.

14. (original) A method as recited in claim 11 wherein determining a wheel lift status comprises determining a first or second wheel lift status.

15. (currently amended) A method of operating an automotive vehicle comprising:

initiating a build cycle;

storing a peak wheel speed after initiating the build cycle;

determining a second wheel speed to determine a change in wheel speed from the peak speed; and

choosing between a first or second lift status in response to the change in wheel speed and a reacceleration threshold, wherein each of the steps are performed with respect to a single wheel of the vehicle.

16. (original) A method as recited in claim 15 wherein the first wheel lift status comprises grounded and the second wheel lift status comprises lifted.

17. (original) A method as recited in claim 15 wherein the first wheel lift status comprises absolutely grounded and the second wheel lift status comprises absolutely lifted.

18. (original) A method as recited in claim 15 wherein choosing comprises choosing between a first, second third or fourth status in response to the change in wheel speed.

19. (previously presented) A method as recited in claim 15 wherein the first wheel lift status comprises absolutely grounded, the second wheel lift status comprises absolutely lifted, and a third wheel lift status comprises possibly grounded and possibly lifted.

20. (original) A method as recited in claim 15 further comprising determining wheel slip, wherein choosing comprises choosing between a first or second wheel lift status in response to the change in wheel speed and wheel slip.

21. (original) A method as recited in claim 15 wherein wheel slip comprises wheel slip ratio.

22. (previously presented) A method as recited in claim 15 wherein the reacceleration threshold comprises a reacceleration reference velocity.

23. (currently amended) ~~A method as recited in claim 22 further comprising~~

A method of operating an automotive vehicle comprising:

initiating a build cycle;

storing a peak wheel speed after initiating the build cycle;

determining a second wheel speed to determine a change in wheel speed from the peak speed; and

choosing between a first or second lift status in response to the change in wheel speed and a reacceleration threshold, the reacceleration threshold comprising a reacceleration reference velocity, and

when the wheel speed is decelerating, setting the reacceleration reference velocity to the wheel speed.

24. (currently amended) ~~A method as recited in claim 22 further comprising~~

A method of operating an automotive vehicle comprising:
initiating a build cycle;
storing a peak wheel speed after initiating the build cycle;
determining a second wheel speed to determine a change in wheel speed from the peak speed; and
choosing between a first or second lift status in response to the change in wheel speed and a reacceleration threshold, the reacceleration threshold comprising a reacceleration reference velocity, and
when the wheel speed is accelerating, increasing the reacceleration reference velocity.

25. (previously presented) A method as recited in claim 24 wherein increasing the reference velocity comprises increasing the reference velocity at a predetermined rate.

26. (previously presented) A method as recited in claim 25 wherein the predetermined rate corresponds to a minimum wheel acceleration representing contact with the ground.

27. (currently amended) A method of controlling an automotive vehicle comprising:
initiating a build cycle;
determining a slip ratio in response to an applied torque;
ending said build cycle in response to said slip ratio being negative;
after the build cycle, initiating a release cycle; and
determining one of possibly grounded condition, or possibly lifted condition during one of the build cycle or the release cycle, wherein each of the steps are performed with respect to a single wheel of the vehicle.

28. (currently amended) A method of operating an automotive vehicle having an antilock brake system and a roll control system comprising:

initiating an antilock brake monitor mode by the vehicle antilock brake system when the roll control system suspects lift and the driver is braking above a minimum pressure level;

determining a slip ratio in response to an applied torque; and

determining wheel lift in response to said slip ratio and the level of wheel deceleration generated while the pressure is being released in the antilock brake monitor mode.

29. (original) A method as recited in claim 28 wherein determining wheel lift comprises determining a absolutely lifted, possibly grounded condition or absolutely grounded in response to the antilock brake monitor mode.

30. (currently amended) A method of controlling an automotive vehicle comprising:

initiating an antilock brake monitor mode having a release cycle;

determining a change in wheel speed;

determining a wheel slip; and

determining a wheel lift or wheel grounded condition in response to the change in wheel speed, a reacceleration threshold and wheel slip, wherein each of the steps are performed with respect to a single wheel of the vehicle..

31. (canceled)

32. (original) A method as recited in claim 30 wherein determining wheel lift comprises determining a absolutely lifted, possibly grounded condition or absolutely grounded in response to the antilock brake monitor mode.

33. (canceled)